THE ANNALS

41

AND

MAGAZINE OF NATURAL HISTORY.

[EIGHTH SERIES.]

No. 113. MAY 1917.

XXXIII.—Descriptions of New Pyralidæ of the Subfamilies Hydrocampinæ, Scoparianæ, &c. By Sir George F. Hampson, Bart., F.Z.S., &c.

The numbers attached to the species in the following paper refer to my classification of Hydrocampinæ and Scoparianæ in the Trans. Ent. Soc. 1897, pp. 127–240, and to subsequent supplementary papers in the Ann. & Mag. Nat. Hist.

EPIPASCHIANÆ.

Genus PLUTOPASCHIA, nov.

Type, Stericta sinapis, Roths.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to vertex of head, the 3rd rather long. Antennæ of female minutely ciliated; tibiæ smoothly scaled. Fore wing narrow, the apex rounded, the termen evenly curved; vein 3 from before angle of cell; 4, 5 stalked; 6 from upper angle; 7, 8, 9, 10 coincident; 11 from cell. Hind wing with veins 3 and 5 shortly stalked, 4 absent; 6, 7 from upper angle of cell, 7 anastomosing with 8.

Genus GEROPASCHIA, n. n.

Aræopaschia, Hmpsn, A. M. N. H. (8) xviii. p. 134 (1916), nec Hmpsn, 1906.

Type, G. grisealis.

CHRYSAUGIN.E.

Murgisca mesozonalis, sp. n.

Q. Head, thorax, and abdomen whitish; patagia and abdomens above tinged with rufous. Fore wing pale greenish yellow; a silvery-white fascia on base of inner area bounded above by a rufous line; a medial silvery-white band from upper angle of cell to inner margin bounded by rufous and constricted at lower angle of cell and vein 1. Hind wing ochreous yellow; cilia of both wings silvery white.

Hab. W. Australia, Sherlock R. (Clements), 2 & type, Roe-

bourne. Exp. 22 mm.

PYRALINÆ.

Pyralis costinotalis, Hmpsn. A. M. N. H. (8) xix. p. 67 (1917).

Hab. Formosa, Arizan (Wileman), 2 of type. Exp. 24 mm.

HYDROCAMPINAE.

(1a) Gargela niphostola, sp. n.

Q. Head, thorax, and abdomen silvery white, the last dorsally suffused with red-brown except on two basal segments; palpi with the 2nd joint golden brown behind; fore femora and tibiæ suffused with golden brown, the tarsi ringed with brown towards extremity; ventral surface of abdomen tinged with golden yellow. Fore wing silvery white; a faint curved brownish postmedial line; a blackish point on termen below apex. Hind wing uniform silvery white. Underside silvery white; the fore wing with a black point on termen below apex.

Hab. D'Entrecasteaux Is., Fergusson I. (Meek), 1 \circ type.

Exp. 18 mm.

(6) Gargela obliquivitta, sp. n.

Mid tibia of male dilated with a fold and tuft of long hair and

fringed with hair above.

Head, thorax, and abdomen silvery white; antennæ brown except above; palpi behind, except the 3rd joint, and base of maxillary palpi dark brown; fore legs tinged with ochreous, the femora at extremities, tibiæ near extremities and tarsi banded with black-brown. Fore wing silvery white; a golden-orange medial line, oblique to upper angle of cell, then inwardly oblique and faint; a golden-yellow tinge from end of cell to medial part of termen; an oblique golden-orange line from costa well beyond middle, where it is dilated into a small wedge-shaped mark to discal fold near termen, an oblique golden-orange wedge-shaped mark beyond it from costa to discal fold just before termen; a cupreous-brown terminal line from apex to discal fold, and a double cupreous-brown striga before termen

above vein 3; cilia white, metallic golden at tips, with cupreousbrown line at base from vein 4 to submedian fold, and wholly tinged with gold towards tornus. Hind wing uniform silvery white.

Hab. Moluccas, Batchian (Doherty), 1 ♂, 1 ♀ type. Exp.

16 mm.

(5 b) Argyractis leucostola, sp. n.

Fore wing of male with small fovea below the costa beyond middle and vein 11 distorted.

Head, thorax, and abdomen silvery white; fore tibiæ black at base and extremity. Fore wing silvery white, the costa suffused with blackish brown to end of cell; a reddish-brown spot in end of cell and oblique black-brown line from median nervure near end of cell to inner margin, diffused on inner side; a brown discoidal striga and oblique line from it to inner margin; postmedial line double, black-brown filled in with yellow and oblique to vein 3, then single, retracted with an upwards curve to lower angle of cell, then strongly excurved to inner margin, its sinus filled in with yellow; a terminal yellow band, arising just below apex, its inner side defined by a black-brown line to above vein 2 and its outer by black points, a silvery spot defined by brown before termen below Hind wing silvery white; a sinuous black-brown line from middle of costa to tornus, with a vellow patch before it below the cell; a double slightly sinuous black-brown line from costa just before apex to submedian fold, excurved below costa and filled in with yellow below vein 3; a yellow terminal band from apex to submedian fold, defined on inner side by a waved black line except at apex; cilia with a brown line at base to vein 2.

Hab. Br. C. Africa, Mt. Mlanje (Neave), 2 d, 5 \ type.

Exp., ♂ 18, ♀ 22 mm.

(13 a) Argyractis flavivittalis, sp. n.

3. Head, thorax, and abdomen whitish mixed with some redbrown; antennæ red-brown; fore tarsi with brown bands towards extremities. Fore wing silvery white, the costal area suffused with brown; a brown antemedial line defined on outer side by white, incurved from below costa; a medial brown line defined on outer side by white, incurved below the cell; a small brown discoidal spot; postmedial line silvery white, defined on inner side by brown from costa to vein 4, then angled inwards to median nervure before end of cell, then oblique and defined on inner side by brown to tornus, with a wedge-shaped yellow patch above it from lower angle of cell to below its angle at vein 1; a silvery-white subterminal line defined on each side by brown from costa to vein 2 and a small brown spot with silvery-white mark before it below vein 2; cilia brown at base, whitish at tips. Hind wing white, the end of cell and the area beyond it from costa to vein 3 yellow; a silvery discoidal bar defined on inner side by a brown striga; postmedial line silvery white and oblique from costa to vein 3; a terminal black patch from below

91%

apex to vein 2, with four occili on it with black centres defined on inner side by white and on outer by golden yellow; cilia white with brown line near base from apex to vein 2.

Hab. Peru, San Domingo (Ockenden), 1 & type. Exp. 14 mm.

(20 a) Argyractis cuprescens, sp. n.

2. Head, thorax, and abdomen cupreous red-brown mixed with some white, the abdomen banded with white; from white at sides. Fore wing cupreous red-brown; a broad oblique silvery-white band from median nervure before middle to inner margin near base; a white medial line defined on each side by darker brown, excurved below costa, then erect; an orange-vellow discoidal bar defined on outer side by a brown line; postmedial line represented by a silverywhite bar from costa connected with an oblique wedge-shaped patch from beyond the cell to above vein 2 and an oblique band from lower angle of cell to inner margin with an orange-yellow patch between it and the wedge-shaped patch; a silvery-white band before termen ending in a point at vein 2; an orange-vellow terminal band defined at sides by brown lines, ending below submedian fold where it is bent inwards; cilia brown at base, white at tips. Hind wing silvery white; some brown at base; a brown medial band, incurved below the cell, with an orange-yellow discoidal patch on it and some orange-yellow below the cell; postmedial line cupreous brown, oblique to beyond lower angle of cell, then incurved; an irregularly reniform white subterminal patch defined by cupreous brown from costa to vein 4; a black terminal band from apex to vein 2 with five iridescent silvery annuli on it, defined on inner side by a white line with a waved black-brown line before it and with some fulvous vellow from it to tornus; cilia white, red-brown at base except towards tornus.

Hab. Ecuador, Rio Verde (Palmer), 1 ♀ type. Exp. 18 mm.

(24 a) Argyractis productalis, sp. n.

Q. Head, thorax, and abdomen red-brown mixed with whitish, the abdomen with whitish bands on basal and 3rd segments; antennæ red-brown; frons whitish; ventral surface of abdomen white. Fore wing red-brown mixed with white, the subterminal triangular patch from costa to vein 2 deep red-brown; a rather diffused white antemedial band from below costa to inner margin; a white medial band defined on outer side by brown, sharply bent inwards to inner margin; a white discoidal bar defined by red-brown; a white postmedial band, its outer edge oblique to vein 3, then retracted to near lower angle of cell, then oblique to inner margin near tornus with its inner edge defined by brown; a silvery-white subterminal band from costa to below vein 2 where it ends in a point and is somewhat bent inwards, a fulvous-yellow band beyond it defined at sides by brown lines; cilia white, brown at base except towards tornus. Hind wing white, the terminal area irrorated with black to vein 3;

a faint rather diffused yellow-brown medial line, oblique to below the cell, then incurved; postmedial line indistinct, yellow-brown, oblique to below vein 4, then inwardly oblique and sinuous; a black point just below apex and four black spots defined on outer side by silver before termen at veins 6 to 2 with a slight waved black line before them and some brownish beyond them before the blackish terminal line.

Hab. Peru, Carabaya, Oconeque (Ockenden), 1 \circ type. Exp. 32 mm.

(24 c) Argyractis argyrophora, sp. n.

Q. Head and thorax silvery white, the vertex of head and dorsum of thorax with some rufous; abdomen silvery white irrorated with brown, the anal tuft rufous; palpi rufous, the extremity of 2nd joint and the 3rd joint white; pectus, legs, and ventral surface of abdomen white, the fore legs suffused with rufous and with black band at the extremity of the tibiæ. Fore wing silvery white, the costal area suffused with rufous; a rufous antemedial line, interrupted in submedian interspace; a silvery-white discoidal bar defined at sides by rufous; postmedial line rufous, oblique to vein 4, then almost obsolete and retracted to median nervure before end of cell, then strong and incurved, a silvery-white band beyond it extending to costa; a wedge-shaped rufous patch from costa to vein 4 before a white terminal band suffused with metallic silver defined by fine blackish lines and forming a wedge-shaped mark at tornus, the area above this mark suffused with yellow; cilia white. Hind wing white; a fulvous-yellow discoidal bar defined on outer side by a metallic silvery bar; an oblique postmedial metallic silvery band, interrupted at vein 4 and ending on termen above tornus, defined on inner side by a yellow band and with the area beyond it yellow; five partly confluent black spots on termen with some metallic silvery between them from below apex to vein 2 and with some silver on termen from them to tornus; cilia white with a fine brown line near base from apex to vein 2.

Hab. Colombia, Choko Prov., Condoto (Spurrell), 5 ♀ type,

R. San Juan, Juntas de R. Tamana, $1 \ Q$. Exp. 20 mm.

(25 a) Argyractis brunneosuffusa, sp. n.

Q. Head and thorax red-brown mixed with some whitish; abdomen fulvous brown with whitish segmental lines, the base with some whitish; palpi with the 3rd joint white; ventral surface of abdomen red-brown with white segmental lines. Fore wing whitish suffused with red-brown especially on costal area; a subbasal shade formed by black-brown scales; a curved whitish antemedial line defined by shades formed by dark brown scales in the interspaces; a slight white discoidal lunule defined by diffused dark brown; postmedial line white defined on inner side by rather diffused dark brown, oblique to vein 6, incurved at discal fold, at

vein 3 retracted to just below angle of cell and excurved below vein 2; a white subterminal band narrowing to points at apex and vein 2, defined on inner side by diffused dark brown and on outer by a yellow terminal band defined on each side by dark lines. Hind wing white, the inner area tinged with red-brown; an oblique white band beyond the cell from below costa to submedian fold, defined on each side by red-brown shades; postmedial line white, oblique to vein 2 where it is excurved to near termen, incurved at submedian fold then bent outwards to termen above tornus, defined on inner side by red-brown and with an oblique white bar before it near tornus, the area beyond it suffused with brown from costa to vein 2 with a whitish patch on it; a black band just before termen from below apex to vein 2, with four metallic silvery annuli on it; the apex yellow followed by a yellow line beyond the occllate band; cilia white with a brown line at base to vein 2.

Hab. Ecuador, R. Pastaza, Banos (Palmer), 1 ♀ type. Exp.

32 mm.

(31 b) Argyractis mimicalis, sp. n.

Head and thorax whitish mixed with pale red-brown; abdomen white tinged with pale red-brown; pectus, legs, and ventral surface of abdomen white with a faint rufous tinge. Fore wing white irrorated with blackish; an inwardly oblique antemedial series of black striæ; a vellow patch in and above end of cell; medial line black, erect to just beyond lower angle of cell, then oblique, sinuous and with another faint line before it towards inner margin; an indistinct black postmedial line from vein 3 to inner margin, angled outwards above vein 1; the apical area yellow, broadly at costa and narrowing to a point at submedian fold; a subterminal white spot below costa before a blackish and silvery line from below the costa to vein 3 towards which it is rather diffused; a small black spot at apex, then a terminal series of black points to submedian fold where there is a black and silvery mark before it; cilia white mixed with fuscous. Hind wing white thickly irrorated with black except on basal and terminal areas; a diffused oblique black subbasal band from discal fold to inner margin; a waved white medial line slightly defined on each side by black; subterminal line white defined on each side by black, excurved below costa, then sinuous; terminal area yellow; a black bar with some silvery-blue scales on it at apex, then three black ocelli each with two silveryblue points on them and a black spot with some silvery blue on it below submedian fold; cilia white with a black line near base to discal fold, then black bars beyond the ocelli.

Hab. Sierra Leone (Clements), 1 ♂; N. Nigeria, Zungeru (Macfie), 1 ♀ type, Borgu, Yelwa L. (Migeod), 1 ♀. Exp.

14 mm.

(31 c) Argyractis nyasalis, sp. n

3. Head and thorax pale yellow mixed with black-brown and some white; abdomen pale red-brown with white segmental lines and a blackish patch before extremity; antennæ dark brown ringed with white; palpi pale rufous; pectus and legs white tinged with rufous, the fore tibiæ with black band near extremity; ventral surface of abdomen white. Fore wing white irrorated with black; a blackish patch at base of costa; a diffused inwardly oblique black subbasal line; a golden-yellow antemedial patch defined by black scales from cell to inner margin; a double inwardly oblique sinuous black medial line; postmedial line double, black filled in with white, oblique to vein 3, then retracted with an upwards curve to lower angle of cell, then strongly excurved above inner margin, the area beyond it yellow irrorated with black; a white subterminal band defined by black lines from costa to vein 4 with some black below it and an oblique black mark above tornus; a terminal yellow band to vein 2; cilia white mixed with black. Hind wing white, the postmedial area to vein 2 and the terminal area irrorated with black; a small black spot on inner margin near base; a broad black antemedial band from below costa to inner margin with a small yellow spot on it in lower angle of cell, defined on outer side by a white line followed by a curved black line; a double black subterminal line filled in with white, excurved below costa, then sinuous, the area beyond it yellow; four rather diffused black ocelli with silvery-blue points on them on termen between vein 7 and the submedian fold, with a waved black line before them; cilia blackish at base, white at tips.

Hab. Br. C. Africa, Blantyre (Davey), 1 & type. Exp.

16 mm.

(45 a) Argyractis melanograpta, sp. n.

3. Silvery white; head with some black-brown behind; abdomen with black-brown band on 2nd segment and slight bar near extremity, the anal tuft brown at extremity; palpi with the 3rd joint black; fore femora and fore and mid tibiæ black-brown in front, the tarsi banded with black-brown. Fore wing with oblique black-brown subbasal band from costa to median nervure; medial line black-brown, double and oblique towards costa, then single, inwardly oblique, rather diffused and bent inwards to inner margin; subterminal line black-brown, double towards costa and inner margin, bent outwards to costa where the inner line has a short streak on its inner side at costa, excurved to near termen at middle and with some black-brown suffusion beyond it at tornus; a black-brown terminal line from below apex to vein 4; cilia tinged with yellow. Hind wing with some black-brown in end of cell; an obliquely curved black-brown medial line, arising below costa and diffused on outer side towards inner margin; a rather interrupted sinuous black-brown subterminal line, diffused below discal fold; cilia

yellow at base and with some black-brown scales at middle at apex, brown at base from discal fold to tornus.

Hab. Br. Guiana, Demerara (Rodway), 1 & type. Exp.

10 mm.

(46 a) Argyractis phæopastalis, sp. n.

Q. Head and tegulæ white; thorax and abdomen white suffused with brown; antennæ brown, yellowish white towards base; palpi white; pectus, legs, and ventral surface of abdomen white, the fore and mid legs tinged with yellow. Fore wing red-brown; a slight whitish medial line, angled outwards below costa and excurved below the cell; an obliquely curved white postmedial line from costa to vein 4 where it is met by an oblique white mark on its inner side from vein 6; a silvery-white subterminal band from below costa, where it is bent outwards to vein 4, an orange-yellow band beyond it on termen extending to vein 2 and defined by brown lines, some silvery white below it above tornus; cilia white. Hind wing red-brown; an indistinct sinuous whitish medial line defined on inner side by darker brown; four minute ocelli just before termen between veins 7 and 2 with black centres and metallic silvery annuli; cilia white, yellow at base and with dark brown line at middle from apex to vein 2.

Hab. Colombia, Choko, Prov. Condoto (Spurrell), 1 ♀ type.

Exp. 10 mm.

(1 c) Eristena tenebrifera, sp. n.

Antennæ of male thickened with scales above towards base; hind femora with fringe of short hair behind towards base, the hind tibiæ with large tuft of long hair on inner side; fore wing with veins 3, 4 stalked.

J. Head, thorax, and abdomen white tinged with ochreous brown and mixed with some fuscous; antennæ fuscous; hind legs with the fringe of hair on femora whitish, the tuft of hair on tibiæ white at base, black at tips. Fore wing white tinged with ochreous brown; some black suffusion on basal area; medial area with some black suffusion, its inner edge rather oblique, its outer incurved below the cell and excurved above inner margin; some blackish suffusion on postmedial costal area and two rather diffused blackish subterminal lines, somewhat excurved below costa, then oblique; a slight dark terminal line with some ochreous brown before it. Hind wing white, the terminal area suffused with ochreous brown.

Hab. DUTCH N. GUINEA, Mimika R. (Wollaston), 1 & type.

Exp. 14 mm.

(1f) Eristena tetralitha, sp. n.

Q. Head, thorax, and abdomen grey suffused with brown and some fuscous; pectus and ventral surface of abdomen whitish; fore tibiæ with black stripe. Fore wing whitish suffused with

brown and irrorated with black; an oblique diffused black antemedial shade; the cell whiter towards extremity; postmedial line
rather diffused, black, obliquely curved to vein 3, then bent upwards
to upper angle of cell, then inwards and oblique to inner margin,
the area above its sinus whitish except towards costa and the area
in its sinus at end of cell and the whole area beyond it rufous; an
obliquely curved rather maculate silvery subterminal line defined on
each side by fuscous; a terminal series of black points; cilia white
mixed with brown. Hind wing whitish; the basal area tinged
with brown and suffused with black; a rather diffused curved
black postmedial line, incurved below vein 3; the terminal area
suffused with rufous; four small black ocelli before termen between
discal and submedian folds, the two or three upper ocelli with white
points in centre, and the upper one with a black point above it;
cilia whitish tinged with brown and with a brown line near base.

Hab. Dutch N. Guinea, Mimika R. (Wollaston), 5 ♀ type, Wataikwa R. (Wollaston), 4 ♀, Snow Mts., Setakwa R. (Meek), 1♀; Br. N. Guinea, Kumusi R. (Meek), 3♀. Exp. 14-20 mm.

(16 a) Nymphula manilensis, sp. n.

J. Head, thorax, and abdomen yellow mixed with some white and fuscous, the last white at base and extremity and with black segmental lines; antennæ yellow ringed with black; pectus, legs, and ventral surface of abdomen white slightly irrorated with brown. Fore wing yellow irrorated with dark brown and mixed with some white, especially on outer half of medial area except towards costa; antemedial line white defined by some black scales, oblique below the cell; a black point in middle of cell and some black suffusion in end of cell; medial line white defined on inner side by black scales, oblique to middle of discocellulars, then inwardly oblique, an oblique white mark beyond it below costa; postmedial line double, brown filled in with white, arising below the costa where there is a white mark before it, oblique and sinuous; subterminal line formed by somewhat dentate white marks defined on each side by blackish, excurved at middle. Hind wing yellow irrorated with black, the base white; an oblique black mark above inner margin near base; medial line double, black filled in with white, sinuous; medial area white with a yellow patch defined by black from below costa to vein 2; postmedial line double, black filled in with white, obliquely curved, slightly sinuous towards costa; a rather maculate white subterminal band defined on each side by black, sinuous; a fine black terminal line; cilia white.

Hab. Philippines, Manila (Ledyard), 1 & type. Exp. 14 mm.

(19 a) Nymphula leucoplagalis, sp. n.

Bocchoris zoilusalis, Druce, Biol. Centr.-Am., Het. ii. p. 558 (part.), nec Wlk.

d. Head, thorax, and abdomen fulvous yellow mixed with fuscous

and some white; antennæ black; pectus, hind legs. and ventral surface of abdomen towards base white; fore tibiæ fuscous, white at extremities. Fore wing fulvous yellow irrorated with dark redbrown; a subbasal red-brown shade; a medial red-brown shade with some white scales on it in end of cell, a white patch beyond it on costal area, defined on outer side by a red-brown shade joining the medial shade at lower angle of cell, then with three small white spots on its outer edge, a small white spot beyond it on costa; the terminal area suffused with dark red-brown. Hind wing fulvous yellow, the basal half and terminal area suffused with dark red-brown.

Hab. Mexico, Morelos, Cuernavaca (H. H. Smith), 1 \eth type, Godman-Salvin Coll. Exp. 14 mm.

(30 b) Nymphula plumbefusalis, sp. n.

2. Head and thorax leaden grey tinged with fuscous; abdomen white, basally suffused with reddish brown; antennæ dark brown; from white; palpi with the 3rd joint white; pectus, legs, and ventral surface of abdomen white, the fore and mid legs tinged with brown, the fore tibiæ blackish on inner side, white on outer side except towards base. Fore wing leaden grey tinged with brown; an antemedial black spot below the cell and slight rufous and dark shade towards inner margin; a black discoidal spot; an indistinct diffused rufous postmedial shade, incurved below vein 4 to below end of cell, arising below the costa and interrupted below the cell; a faint dark subterminal shade; a faint punctiform brown line before termen and terminal series of slight dark spots. wing pure white; a faint reddish-brown line from lower angle of cell to vein 1; a reddish-brown postmedial bar at discal fold, diffused spot at vein 2 and small spot at inner margin; a punctiform line before termen and a terminal line; cilia white mixed with reddish brown and chequered with darker brown at base.

Hab. Sudan, Blue Nile (Flower), 6 & type. Exp. 20 mm.

(52 b) Nymphula metastictalis, sp. n.

Q. Head, thorax, and abdomen white, the metathorax with brownish bar, the abdomen tinged with ochreous brown except at base; fore tibiæ fuscous brown at extremities. Fore wing silvery white slightly tinged with ochreous brown except on terminal area; small black-brown spots at base of costa and cell; a black-brown antemedial spot on costa; an inwardly oblique brown medial line with black spot at costa; a small white discoidal spot indistinctly defined by brown; postmedial line brown with a black spot at costa where it arises towards apex, excurved to vein 2, then incurved to inner margin below end of cell; a curved brown subterminal line from vein 7 to submedian fold; a fine black terminal line before a yellow terminal band, punctiform towards apex; cilia white suffused with brown. Hind wing white suffused with reddish brown except

at base and on inner area; diffused brown ante- and postmedial lines and a faint subterminal shade; two small black spots just before termen below apex and eight between discal and submedian folds, all defined on inner side by white; the termen yellow; cilia brown at base, white at tips.

Hab. Goodenough I. (Meek), $1 \$ \$\ type. Exp. 20 mm.

(53 b) Nymphula flavicostalis, sp. n.

Fore wing of male without fovea below the cell.

3. Head and thorax white mixed with black-brown and some vellowish; abdomen white irrorated with black forming diffused dorsal bands except at base; antennæ yellow ringed with brown; palpi yellow mixed with red-brown; pectus and ventral surface of abdomen white irrorated with dark brown; legs white, the tibiæ and tarsi banded with black. Fore wing white tinged in parts with brown and irrorated with black-brown, the costal area to end of cell and towards apex orange-yellow; antemedial line white defined on each side by blackish, curved, obsolete at inner margin; an elongate white spot in the cell before the medial line which is white defined on each side by blackish, slightly waved, oblique below the cell, a white patch beyond it on costal area; an irregular yellowish discoidal spot defined by black scales; postmedial line white defined on each side by dark brown, maculate and slightly curved to vein 3, then bent inwards and obsolescent to lower angle of cell, then erect and sinuous, some alternating black and white marks before it on costa; a white subapical point, then a series of white subterminal lumules, larger and extending to near the postmedial line above and below vein 6, with diffused black marks beyond them to vein 3; the termen narrowly yellow; cilia black at base, then white with black marks towards apex and at middle. Hind wing white; rather diffused brownish medial and postmedial lines; the termen suffused with brownish, its inner edge slightly waved; some slight dark marks on termen towards apex; cilia with some dark scales at tips; yellowish at base and with a blackish line at middle between veins 3 and 1.

Hub. Pert, Carabaya, Oconeque (Ockenden), 1 σ type. Exp.

22 mm.

(53 c) Nymphula graphicalis, sp. n.

Q. Head, thorax, and abdomen white, the last with faint dorsal ochreous-brown bands except at base. Fore wing silvery white; a subbasal black point below vein 1; a slight antemedial spot formed by black scales below costa; medial line with an oblique black striga from costa, then double and pale ochreous brown, incurved in the cell and obliquely excurved below it; a narrow discoidal lunule defined by black and a patch of pale ochreous-brown suffusion below end of cell; postmedial line double, brown with a black point on the inner line at costa, excurved below costa, then oblique,

slightly waved and paler below vein 4, a pale ochreous-brown tinge before its costal half and beyond it below vein 5, pale ochreous-brown streaks beyond it on costa and vein 7 with a black streak between them from termen; cilia tinged with ochreous brown. Hind wing silvery white; a double waved black-brown antemedial line; a discoidal bar defined by black-brown; postmedial line double, ochreous brown and somewhat dentate, slight ochreous-brown suffusion before it except towards costa and inner margin and slight streaks beyond it on the veins of costal half, then brown suffusion to tornus; cilia with pale ochreous brown mixed.

Hab. Peru, Carabaya, Oconeque (Ockenden), 1 2 type. Exp.

20 mm.

(1 b) Margarosticha gaudialis, sp. n.

d. Head and thorax grevish mixed with brown, the tegulæ and patagia with some fulvous; abdomen fulvous with brown dorsal bands; antennæ whitish tinged with brown; palpi banded with dark brown; pectus, legs, and ventral surface of abdomen whitish tinged with brown, the fore legs with the femora black above, the tibiæ black at extremities, the tarsi with black marks at the joints. Fore wing fulvous orange, the base tinged with brown; an oblique silvery band defined on each side by brown from middle of cell to inner margin; the fovea in end of cell surrounded by brown suffusion; a triangular silvery-white mark beyond the cell defined by rather diffused brown which extends to the costa; a silvery-white subterminal band from costa to vein 4 where it ends in a point, defined on inner side by rather diffused brown and on outer by a black line extending to below vein 3; a terminal series of small black spots to vein 2 and a short leaden-brown fascia above tornus ending in a silvery point; cilia silvery. Hind wing fulvous orange, the base pale; a slightly sinuous silvery-white medial band defined on each side by brown; the postmedial area brown, ending in a point above tornus; four ocellate black spots on termen between vem 7 and submedian fold, defined on inner side by a waved white line and with fulvous orange between them, a small triangular black spot above the uppermost ocellus; cilia silvery.

Hab. Admiralty Is. (Meek), 3 & type. Exp. 18 mm.

(3 a) Margarosticha euprepialis, sp. n.

J. Head and thorax silvery white, the shoulders and some hairs at tips of patagia yellow-brown; abdomen silvery white at base with a yellow-brown band, then pale yellow with slight yellow-brown dorsal spots to beyond middle and silvery-white segmental lines; antennæ pale fulvous; palpi white, the 2nd joint banded with pale red-brown; pectus, legs, and ventral surface of abdomen silvery white, the fore tibiæ tinged with yellow above. Fore wing pale yellow; a red-brown tinge at base of costa and a triangular white patch on basal inner area defined on outer side by red-brown scales;

a broad oblique silvery-white medial band from cell to inner margin, defined on inner side by a curved red-brown line and on outer by a diffused red-brown patch from submedian fold to inner margin; an oblique silvery-white discoidal bar beyond the fovea; an oblique eonical silvery-white postmedial patch from costa to vein 3, defined by red-brown and with some red-brown beyond it on costa; a silvery-white subterminal band from costa to discal fold, defined by red-brown extending to vein 2 where it ends in a point and with a wedge-shaped brown mark below it above tornus, these brown markings tinged with silvery below the band; a fine red-brown terminal line; cilia silvery. Hind wing white; a black-brown subbasal band from below costa to above outer margin; a vellow band from middle of costa to tornus defined on each side by slightly sinuous red-brown lines, the outer line with a brilliant silver line beyond it; the area beyond the band irrorated with black scales; five black ocellate spots on a white band on termen between discal and submedian folds with small brilliant silvery spots between them; the termen vellow towards tornus; eilia silvery.

Hab. QUEENSLAND, Townsville (Dodd), 1 & type. Exp.

22 mm.

(5) Margarosticha argyrograpta, sp. n.

2. Head, thorax, and abdomen orange-yellow with a golden gloss, the head, patagia, and base of abdomen with some white: palpi white with brown band at extremity of the 2nd joint and the 3rd joint yellow; peetus, legs, and ventral surface of abdomen white, the fore and mid tibiæ tinged with vellow and the former black at extremity. Fore wing orange-yellow; a silvery-white subbasal patch from middle of cell to inner margin where it extends to the base, its outer edge angled outwards at median nervure: an oblique silvery-white medial band from discal fold to inner margin. produced to streaks beyond lower angle of cell and below cell 2; an oblique triangular silvery-white postmedial patch from costa to vein 4, its outer edge defined by brown; a wedge-shaped silverywhite subterminal band from costa to below vein 3, slightly defined at sides by brown and its lower part metallic silvery; a metallic silvery fascia above tornus; a terminal series of black points with larger point at apex; eilia white tinged with yellow. Hind wing orange-vellow, the base white; a silvery-white medial band with slightly waved edges, its inner edge defined by brown; a metallic silvery postmedial lunule between veins 5 and 2 and a spot above tornus; three large black ocellate spots on termen between discal and submedian folds with some silvery scales on their inner edge and a line before them which is yellowish above and silvery white below, extending to termen below the lowest spot, a small triangular black spot above the uppermost spot on termen; cilia silvery white at base, white tinged with brown at tips.

Hab. BISMARCK ARCHIPELAGO, Rook I. (Meek), 3 ♀ type,

Exp. 18-22 mm.

(1 c) Cataclysta perirrorata, sp. n.

Head, thorax, and abdomen silvery white mixed with brown: autennæ white tinged with brown; palpi white tinged with yellow; pectus, legs, and ventral surface of abdomen white tinged with brown. Fore wing white, the medial area irrorated with large black scales; the base orange-yellow with some brown at costa; an inwardly oblique orange-yellow antemedial band slightly defined at sides by brown; an oblique orange-vellow postmedial band from below costa to termen at submedian fold where it is confluent with a similar curved subterminal band, a silvery point below its extremity with a vellow striga before it to tornus; an orange-yellow terminal band from just below apex to vein 3 where it ends in a point, defined on inner side by a brown line and with some silver between it and the subterminal band except towards costa; eilia white mixed with brown. Hind wing white, the medial area irrorated with large black scales, narrowing to inner margin near tornus; a faint oblique orange-yellow antemedial shade; two fine very slightly waved black subterminal lines, slightly excurved below costa and bent outwards to tornus; four ocellate black spots on termen from below apex to submedian fold with small metallic silver spots on the 1st and 4th and small silver spots between them on termen; eilia white with a brown line at base and some brown at tips especially towards apex.

Ab. 1. Abdomen orange-vellow mixed with brown; fore wing with the costal area suffused with brown, the medial area more thickly irrorated with black except towards costa, the medial band on outer side and the subterminal band on inner side with some silvery suffusion, the oblique postmedial band almost interrupted at middle and with distinct bar from it to tornus; hind wing suffused with brown except at base, the oblique orange-yellow antemedial band distinct, defined by brown and bent inwards to inner margin, the occilate terminal black spots more confluent. Br. C. Africa,

Mashonaland.

Ab. 2. Fore wing with the bands and hind wing with the ante-

medial shade rufous. Cape Colony.

Hab. Gold Coast, Appan, 1 &, Bibianaha (Spurrell), 4 &, 2 ♀, Kuması (Sanders), 1 & type; S. Nigeria, Ebute Meta (Boag), 1 &, 1 ♀; Br. C. Africa, Zomba (Old), 1 ♀, Mt. Mlanje (Neave), 4 &, 2 ♀; Mashonaland (Dobbie), 2 &; Cape Colony, Annshaw (Miss F. Barrett), 1 &. Exp. 12-16 mm.

(1e) Cataclysta nigristriata, sp. n.

Head, thorax, and abdomen silvery white suffused with redbrown, the last more fulvous towards extremity; palpi brown towards base, white towards extremity; pectus, legs, and ventral surface of abdomen white tinged with brown. Fore wing white, the medial area except towards costa irrorated with large black scales and with fine black streaks beyond the cell and on vein 1

and inner margin, the terminal area from costa beyond middle to inner margin near tornus golden yellow; the base reddish brown with inwardly oblique outer edge; a faint inwardly oblique vellowish antemedial band, followed by a cupreous-brown medial line, incurved below the cell; an oblique wedge-shaped white postmedial patch from costa to discal fold, defined on inner side by brown; a subterminal band from below costa to vein 4 where it ends in a point, white above, silvery below, defined by black lines, the line on inner side reaching the costa; an oblique silvery bar from below vein 4 beyond the cell to just above tornus; cilia white tinged with cupreous brown except at submedian fold and at tips between veins 6 and 4. Hind wing white, the medial area irrorated with large black scales and with slight streaks below costa and triangular in shape, from costa to submedian fold; cupreousbrown bars at and beyond end of cell; the inner area orangevellow from before middle to tornus with metallic streaks on it at middle of inner margin and in terminal part of submedian fold; an oblique black line from below apex to submedian fold beyond middle; five ocellate black spots on termen from below apex to above tornus with a white band before them and orange-vellow between their upper parts and metallic silver spots on termen, the first and third black spots smaller; cilia cupreous brown, white at tips except at apex.

Hab. DUTCH N. GUINEA, Ron I. (Doherty), 1 ♂, 1 ♀, Kapaur (Doherty), 1 ♂, Mimika (Woolaston), 1 ♂ type; Admiralty Is. (Meak), 1 ♂, 1 ♀; Louisiade Is., St. Aignan (Meek), 1 ♀.

Exp. 12 mm.

(1g) Cataclysta amboinalis, sp. n.

Q. Head, thorax, and abdomen golden yellow mixed with white and black; antennæ brownish, yellow towards base; palpi yellow tinged with brown; pectus, legs, and ventral surface of abdomen white tinged with brown. Fore wing white, the basal area and costal area to end of cell tinged with cupreous brown, the medial area irrorated with large black scales except towards costa, the apical area from costa at end of cell to termen above tornus golden vellow defined on inner side by brown; antemedial line dark brown, slightly curved; an oblique wedge-shaped silvery-white postmedial patch defined by brown from costa to vein 4; a curved subterminal band from costa to vein 3, silvery white above, metallic silvery below defined by black lines, the outer line not reaching the costa; an oblique metallic silvery spot defined by blackish above tornus; cilia cupreous brown at base, white tinged with brown at tips, at submedian fold pure white to base. Hind wing white, the medial area irrorated with large black scales except towards inner margin, the terminal area cupreous brown; a slight black spot near base below the cell; an indistinctly double oblique cupreous-brown antemedial line; four partly confluent ocellate black spots with metallic silver centres on termen from below apex to submedian

fold, with some orange-yellow scales before the three lower spots and metallic gold points between the spots on termen; cilia cupreous brown at base, white tinged with brown at tips.

Hab. Amboina (Doherty), 1 2 type. Exp. 12 mm.

(1h) Cataclysta queenslandica, sp. n.

3. Head and thorax silvery white, the patagia vellowish at tips: abdomen silvery white suffused with golden yellow; antennæ brownish with white points in front; palpi yellow tinged with brown; pectus, legs, and ventral surface of abdomen white tinged with yellow, the fore femora above and tibiæ on inner side black. Fore wing white, the basal area obliquely and the costal area to end of cell cupreous brown, the medial area irrorated with cupreous brown except towards costa, the terminal area orange-yellow from costa at end of cell to inner margin near tornus; a cupreous-brown discoidal spot and two lines from lower angle of cell, diverging towards inner margin; an oblique wedge-shaped silvery-white postmedial patch from costa to vein 4, some eupreous brown beyond it on costa; a subterminal band from below costa to vein 3, where it ends in a point, white above and metallic silver below, the white part defined at sides by eupreous brown on inner side extending to the costa; an oblique metallic silver spot above tornus; a fine dark terminal line; cilia cupreous brown, white at submedian fold. Hind wing white, the postmedial area irrorated with large black scales, triangularly from costa where it extends to apex to submedian fold; the base tinged with vellow; a cupreous-brown antemedial bar in and below the cell; an oblique cupreous-brown medial band from costa to submedian fold; the terminal half of inner area orange-yellow with some metallic silver at middle of inner margin; a fine sinuous black-brown subterminal line from apex to above tornus; five partly confluent ocellate black spots on termen with metallic silver points between them and orange-yellow points on termen; cilia cupreous brown at base, white tinged with brown at tips.

Q. Head with dark bar behind antennæ; thorax tinged with ochreous brown; abdomen yellower; fore wing with the base and costal area redder brown, an oblique red-brown medial band, the yellow terminal area defined on inner side by two red-brown lines, angled inwards to lower angle of cell; hind wing with oblique orange-yellow medial band defined at sides by cupreous-brown lines, the postmedial area more strongly irrorated, the subterminal line more distinct and defined on each side by yellowish white, the

terminal ocellate spots better defined and separate.

Hab. Queensland, Cooktown, Cedar Bay (Meek), 1 σ type, Kuranda (Dodd), 1 \circ . $Exp., \sigma$ 14, \circ 16 mm.

[To be continued.]